

Phytosociological Research Center

www.globalbioclimatics.org

Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

KENGTUNG (MYANMAR -BURMA-)

Altitude: 828 m.

Latitude: 21° 18'N Longitude: 99° 37'E

Temperature observation period.: 1986-1994 (9)

Rainfall observation period....: 1988-1994 (7)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	17.22	24.44	10.00	30.00	3.89	0.0	39.44
Feb.	19.17	27.78	10.56	32.22	5.00	4.8	50.58
Mar.	22.22	31.11	13.33	35.00	8.89	10.4	86.54
Apr.	25.84	33.89	17.78	40.00	13.89	9.4	133.09
May.	26.39	32.22	20.56	37.78	17.22	179.8	151.68
Jun.	26.12	30.56	21.67	35.00	17.78	207.5	144.88
Jul.	25.56	29.44	21.67	32.78	18.89	285.5	141.50
Aug.	25.28	28.89	21.67	32.78	17.78	262.6	132.54
Sep.	24.73	28.89	20.56	32.78	16.11	180.6	114.71
Oct.	23.34	27.78	18.89	33.89	12.78	7.9	96.07
Nov.	20.56	26.67	14.44	30.00	8.89	11.7	62.56
Dec.	18.06	25.00	11.11	32.22	2.78	5.8	44.90
Year	22.87	28.89	16.85	33.70	11.99	1166	1198.5

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	573
Compensated thermicity index.....(Itc):	573
Simple continentality index.....(Ic):	9.2
Diurnality index.....(Id):	17.8
Annual ombrothermic index.....(Io):	4.25
Monthly dry ombrothermic index.....(Iod1):	No
Bimonthly dry ombrothermic index.....(Iod2):	0.13
Threemonthly dry ombrothermic index.....(Iod3):	0.19
Fourmonthly dry ombrothermic index.....(Iod4):	0.30
Annual ombro-evaporation index.....(Ioe):	0.97
Annual positive temperature.....(Tp):	2745
Annual negative temperature.....(Tn):	-0
Dry station temperature.....(Td):	544
Positive precipitation.....(Pp):	1166

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0°
Months	5	0	0	7	0

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - High Subhyperoceanic

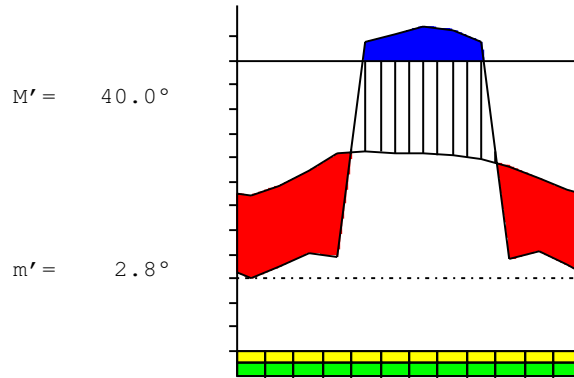
Bioclimate(Variant): TROPICAL PLUVISEASONAL (XEROPHYTIC)

Bioclimatic belt...: UPPER THERMOTROPICAL LOW SUBHUMID

KENGTUNG (MYANMAR -BURMA-)

828 m

P= 1166 21° 18'N 99° 37'E 9/7 y.
 T= 22.9 ° Ic= 9.2 Tp= 2745 Tn= -0
 m= 10.0 ° M= 24.4 ° Itc= 573 Io= 4.2



**TROPICAL PLUVISEASONAL (XEROPHYTIC)
 UPPER THERMOTROPICAL LOW SUBHUMID**

WATER INDEX CARD

KENGTUNG (MYANMAR -BURMA-)

Altitude: 828 m.

Latitude: 21° 18'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	17.2	39	0	0	0	0	39	0	5	-1.0
Feb.	19.2	51	5	0	0	5	46	0	2	-0.9
Mar.	22.2	87	10	0	0	10	76	0	1	-0.8
Apr.	25.8	133	9	0	0	9	124	0	1	-0.9
May.	26.4	152	180	28	28	152	0	0	0	0.1
Jun.	26.1	145	208	63	91	145	0	0	0	0.4
Jul.	25.6	141	286	9	100	141	0	135	67	1.0
Aug.	25.3	133	263	0	100	132	0	130	99	0.9
Sep.	24.7	115	181	0	100	115	0	66	82	0.5
Oct.	23.3	96	8	-88	12	96	0	0	41	-0.9
Nov.	20.6	63	12	-12	0	24	39	0	20	-0.8
Dec.	18.1	45	6	0	0	6	39	0	10	-0.8
Year	22.9	1198	1166	*	*	835	363	331	331	*

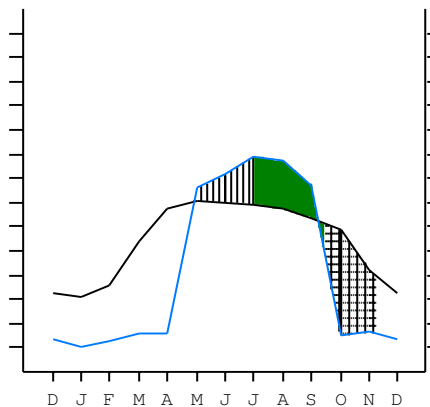
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

KENGTUNG (MYANMAR -BURMA-)

21°18'N 99°37'E 828 m 9/7 y.

T= 22.9 Ic= 9.2 **TROPICAL PLUVISEASONAL (XEROPHYTIC)**
 m= 10.0 Tp= 2745 **UPPER THERMOTROPICAL**
 M= 24.4 Tn= -0 **LOW SUBHUMID**
 M' = 40.0 Itc= 573
 m' = 2.8 Io= 4.2
 P= 1166 mm ———
 PE= 1198 mm ———

	Imbibing	25 Apr.
■	Saturation	2 Jul.
▨	Reserve Use	13 Sep.
□	Deficit	7 Nov.



KENGTUNG (MYANMAR -BURMA-)

Latitude: 21°18'N Longitude: 99°37'E Altitude: 828 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A3a]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: a. High

Thermic types [A2.A2]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm

Bioclimatic types [A4.2a.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic Classification: Trde.Ttr.Shu

KENGTUNG (MYANMAR -BURMA-)

Latitude: 21°18'N Longitude: 99°37'E Altitude: 828 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1125
 Coldest semester of the year.....(Psw): 41
 Warmest four months period of the year.....(Pcm1): 682
 Following warmest four months period.....(Pcm2): 463
 Positive precipitation dryest 3 months.....(Ppd): 11
 Positive precipitation dryest 2 months.....(Ppd2): 5
 Positive precipitation dryest 1 month.....(Ppd1): 0
 Positive precipitation warmest 3 months.....(Pps): 397
 Positive precipitation warmest 2 months.....(Pps2): 387
 Positive precipitation warmest 1 month.....(Pps1): 180
 Positive precipitation coldest 3 months.....(Ppw): 11
 Positive precipitation coldest 2 months.....(Ppw2): 6
 Positive precipitation coldest 1 month.....(Ppw1): 0

Seasons	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4
Rainfall	10	199	755	200

Tropical rainfall rhythms: 3 > 4 > 2 > 1

KENGTUNG (MYANMAR -BURMA-)

Latitude: 21°18'N Longitude: 99°37'E Altitude: 828 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 26.4
 Average coldest month [T].....(Tmin): 17.2
 Maximum temp. warmest month [M].....(Tmmax): 33.9
 Minimum temp. coldest month [m].....(Tmmin): 10.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 40.0
 Absolute Min.temp. coldest month [m'].....(Tamin): 2.8
 First warmest contrasted month [M].....(Tcmax): 31.1 (3)
 First coldest contrasted month [m].....(Tcmin): 13.3 (3)
 Dry station temperature.....(Td): 544
 Positive temperature dryest 3 months.....(Tpd): 544
 Positive temperature dryest 2 months.....(Tpd2): 364
 Positive temperature dryest 1 month.....(Tpd1): 172
 Positive temperature warmest 3 months.....(Tps): 784
 Positive temperature warmest 2 months.....(Tps2): 525
 Positive temperature warmest 1 month.....(Tps1): 264
 Positive temperature coldest 3 months.....(Tpw): 544
 Positive temperature coldest 2 months.....(Tpw2): 353
 Positive temperature coldest 1 month.....(Tpwl): 172

KENGTUNG (MYANMAR -BURMA-)

Latitude: 21°18'N Longitude: 99°37'E Altitude: 828 m

SEASONAL PARAMETERS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Warmest semester...(Sms)				o	o	o	o	o	o			
Dryest semester...(Smd)	o	o	o							o	o	o
Warmest 4 months...(Cm1)				o	o	o	o					
Dryest 4 months...(Cmd)	o	o	o									o
Vegetation Activity(Pav)	o	o	o	o	o	o	o	o	o	o	o	o
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid....[m <=0] (Pf)												
Pregelid....[m' <=0] (Pf)												
Agelid.....[m' > 0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

KENGTUNG (MYANMAR -BURMA-)

Latitude: 21°18'N Longitude: 99°37'E Altitude: 828 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.03
 Mediterranean index of July.[PE/P].....(Im1): No
 Mediterranean index of July & August.....(Im2): No
 Mediterranean index of June, July & August....(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	58	0	48	104	94	1798	2075	2855	2626	1806	79	117
Tp	181	172	192	222	258	264	261	256	253	247	233	206
Io (Iom)	0.32	0.00	0.25	0.47	0.36	6.81	7.94	11.2	10.4	7.30	0.34	0.57
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	106 / 544			1996 / 744			7556 / 770			2002 / 686		
Io (Iot)	0.195			2.681			9.818			2.917		
Semesters	December-May						June-November					
Pp(x10)/Tp	2102 / 1289						9558 / 1456					
Io (Iosm)	1.631						6.565					

KENGTUNG (MYANMAR -BURMA-)

Latitude: 21°18'N Longitude: 99°37'E Altitude: 828 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 9.17
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 22.52
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 16.01
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.13
 + Subcontinental (1.1<CI<1.7)
 Rainfall Index of Lang (1925) [R=P/T]: 50.97
 + Semiarid (60>R>40)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 35.47
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: 111.20
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 1.96
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 0.97
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 69.91
 + Low (60<K<90)

KENG TUNG (MYANMAR -BURMA-)

Latitude: 21°18'N Longitude: 99°37'E Altitude: 828 m

BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)

- + Climate: A. Warm and temperate warm
- + Region: 3. Termoxerotic (Mediterranean warm)
- + Thermic type: 2. Macrothermic

Thorntwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.00	0.01	0.03	0.03	0.69	0.81	1.17	1.07	0.72	0.02	0.04	0.02
T-E ratio	7.75	8.63	10.00	11.63	11.88	11.75	11.50	11.38	11.13	10.50	9.25	8.13
Precipitation-effectiveness: 46.04						Temperature-efficiency: 123.52						
Moisture Index [MI=100*(P-PE)/PE]: -2.71 + Cl.Subhumid dry (-33.3<MI<0) Index of dryness [DI=100*d/PE]: 30.30 + Moderate deficit (16.7<DI<33.3) Index of humidity [HI=100*s/PE]: 27.58 + Strong surplus (20<HI) Potential Evapotranspiration PE: 1198.50 + Forth mesothermic (997<PE<1440)												

